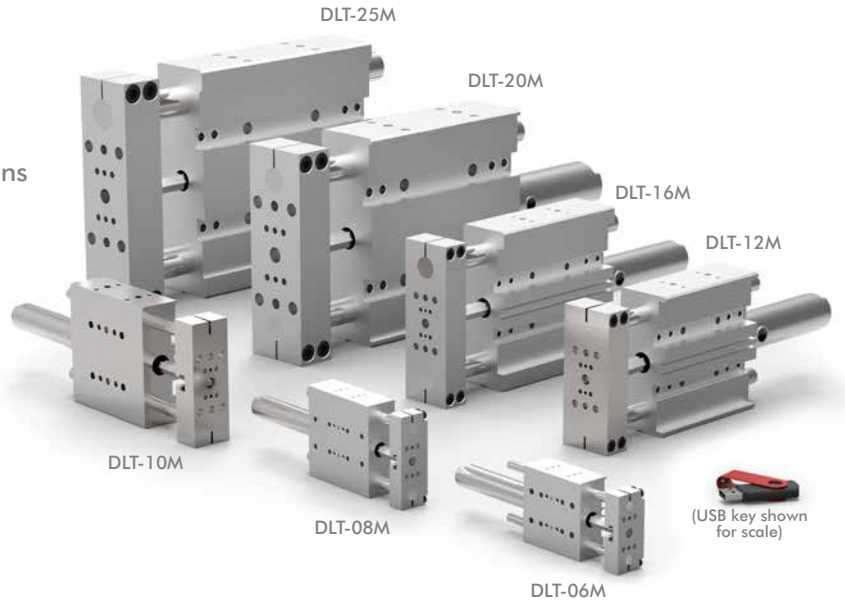


# DLT SERIES - EXTERNAL AIR CYLINDER

## External Air Cylinder Linear Thruster Slides | Features and Benefits | How To Order

### Features:

- Bearing system for smooth operation
- Rugged design produces very reliable long life operation
- Replaceable air cylinder with adjustable cushions
- Non-powered Thrusters use customer supplied cylinders
- Urethane bumpers, hardened pads, oil wick
- Optional telescopic airlines transfers air to tooling
- DIRECTCONNECT™ mounting pattern
- Corrosion resistant shafting for corrosive environments
- Position sensing using inductive or magneto resistive sensors



### Applications:

- Machining and automation applications
- Harsh environment pick-and-place applications
- Gantry system applications

## How To Order

Size	Styles Available	Style	Description
<b>06M</b>	T, U	<b>T</b>	Replaceable cylinder w/o adjustable air cushions
<b>08M</b>	T, U	<b>A</b>	Replaceable cylinder with adjustable air cushions
<b>10M</b>	A, U	<b>N</b>	Repairable VDMA cylinder w/adjustable air cushions
<b>12M</b>	A, U	<b>R</b>	Repairable locking VDMA cylinder w/adjustable air cushions
<b>16M</b>	A, U	<b>U</b>	Non-powered unit*
<b>20M</b>	N, R, U		
<b>25M</b>	N, R, U		

\*Without cylinder. **Metric Units:** Mount VDMA cylinder directly.

<b>DLT</b>	-		-		-		-		-		-		-		-		-		-	
------------	---	--	---	--	---	--	---	--	---	--	---	--	---	--	---	--	---	--	---	--

**Base Model** (DLT)

**Bearing** Description

<b>B</b>	Linear Ball Bearings*
<b>C</b>	Composite Bushings

\*Not available on -06 or -08

**Shafting** Description

<b>"Blank"</b>	Precision Hardened
<b>S</b>	Corrosion Resistant

Size	Style	Stroke* Metric (mm)
DLT-06M	T, U	<b>10, 25, 40, 50, 75, 100, 125, 160</b>
DLT-08M	T, U	<b>10, 25, 40, 50, 75, 100, 125, 160, 175, 200</b>
DLT-10M	A, U	<b>25, 50, 80, 100, 125, 160, 200, 250, 300</b>
DLT-12M	A, U	<b>25, 50, 80, 100, 125, 160, 200, 250, 300, 320, 360, 400</b>
DLT-16M	A, U	<b>25, 50, 80, 100, 125, 160, 200, 250, 300, 320, 360, 400, 500</b>
DLT-20M	N, R, U	<b>25, 50, 80, 100, 125, 160, 200, 250, 300, 320, 360, 400, 500</b>
DLT-25M	N, R, U	<b>25, 50, 80, 100, 125, 160, 200, 250, 300, 320, 360, 400, 500</b>

\*Custom strokes available. Consult factory.

# DLT SERIES - EXTERNAL AIR CYLINDER

## External Air Cylinder Linear Thruster Slides | Accessories

Shock/Stop & Mounting Accessories	Model Numbers	Style	Part Number	Qty/Unit
Universal Mounting Kit (Stop/Shock)	06	All	OSAK-069	1-4
	08		OSAK-070	
Universal Mounting Kit (Stop/Shock/Sensor)	10		OSAK-055	
	12		OSAK-057	
	16		OSAK-059	
	20		OSAK-061	
	25		OSAK-063	
	06, 08		SHOK-030	
Shock Absorber (2 Max on -06)	10		SHOK-028	
	12, 16,		SHOK-010	
	20, 25		SHOK-029	
	06, 08		DLT-0623	
Adjustable Hard Stop	10, 12, 16, 20, 25		DLT-1023	
	06		OSAK-067	
08	OSAK-068			
Urethane Bumper/Stop Collar Kit	10		OSAK-065	
	12	OSAK-066		
	16	OSAK-060		
	20	OSAK-062		
	25	OSAK-064		

Sensor Accessories	Model Numbers	Style	Part Number	Qty/Unit
Inductive Sensor Mounting Kit	06	T	OSMK-076	1
Inductive Sensor Mounting Kit	08		OSMK-077	
PNP Inductive Sensor with Quick Disconnect*	06, 08,	T	OISP-014	
NPN Inductive Sensor with Quick Disconnect*			OISN-014	
PNP Inductive Sensor with Quick Disconnect*	10, 12, 16, 20, 25	A, N, R	OISP-011	1-2
NPN Inductive Sensor with Quick Disconnect*			OISN-011	
PNP Magneto Resistive Sensor w/Qk Disconnect*	06, 08, 10, 12, 16	T, A	OHSP-005	
NPN Magneto Resistive Sensor w/Qk Disconnect*			OHSN-005	
PNP Magneto Resistive Sensor w/Qk Disconnect*	20, 25	N, R	OHSP-020	
Quick Disconnect 2 Meter Cable Length*	All Model	All	CABL-010	
Quick Disconnect 5 Meter Cable Length*			CABL-013	
Cable Extension Cord 1M Length*	All Models	All	CABL-015	
Cable Extension Cord 2M Length*			CABL-016	

Pneumatic Accessories	Model Numbers	Style	Part Number	Qty/Unit
VDMA Cylinder Mounting Kit	20, 25	U	ODLT-004	1
G1/8 Telescopic Airlines (up to 160mm)	10, 12, 16, 20, 25	All	OTAL-045	1-4
G1/8 Telescopic Airlines (up to 300mm)			OTAL-046	
G1/8 Telescopic Airlines (up to 450mm)			OTAL-047	
G1/8 Telescopic Airlines (up to 600mm)			OTAL-048	
M5 Adjustable Flow Control			06, 08	VLVF-008
G1/8 Adjustable Flow Control	10, 12, 16, 20, 25	VLVF-005		

\* Sensor and cable sold separately.

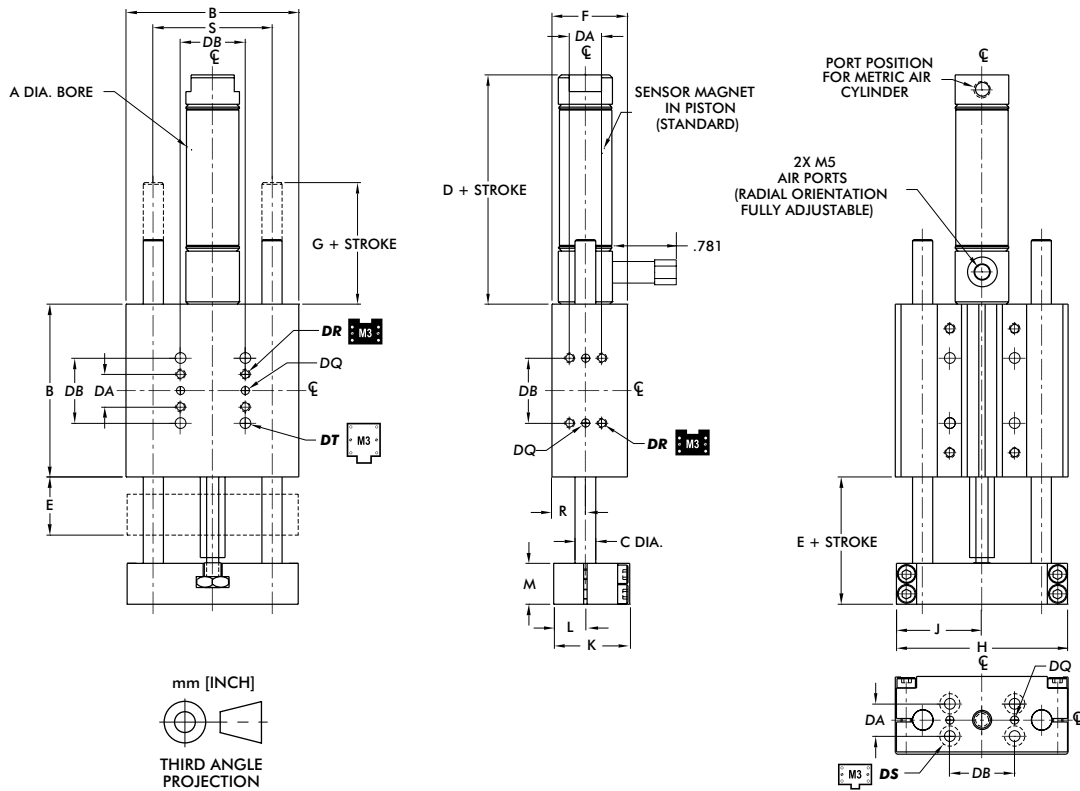
See page GR-LIN-36 for Accessory Mounting Technical Data

# DLT SERIES - EXTERNAL AIR CYLINDER

## External Air Cylinder Linear Thruster Slides | Technical Specifications

Specifications	Units	06	08	10	12	16	20	25
Max. Air Pressure	bar [psi]	7 [100]						
Thrust Force @ 5.5 bar [80psi]	N [lbs]	111 [20]	89 [20]	173 [35]	270 [70]	270 [70]	443 [140]	443 [140]
Weight (basic unit)	kg [lb]	0.24 [0.53]	0.40 [0.88]	1.05 [2.12]	1.64 [3.42]	2.11 [4.47]	6.3 [14.3]	8.5 [19.2]
Additional Weight per Stroke	g/mm [lbs/in]	0.88 [0.05]	1.43 [0.07]	1.2 [0.09]	2.9 [0.15]	4.2 [0.23]	7.9 [0.53]	10.7 [0.68]
Cylinder Bore Ø	mm [in]	16 [0.563]		20 [0.787]	25 [0.984]		32 [1.26]	
Shaft Ø	mm [in]	6 [0.236]	8 [0.315]	9.5 [0.375]	12 [0.472]	16 [0.630]	20 [0.787]	25 [0.984]
Max (M) Vertical Motion	Nm [in-lbs]	0.6 [5]	1.3 [10]	--	--	--	--	--
Min. Air Pressure to Release Cyl. Lock -R	bar [psi]	--	--	--	--	--	4 [60]	
Holding Force of Lock Mechanism -R	N [lbs]	--	--	--	--	--	550 [123]	

## External Air Cylinder Linear Thruster Slides | Dimensions and Technical Specifications

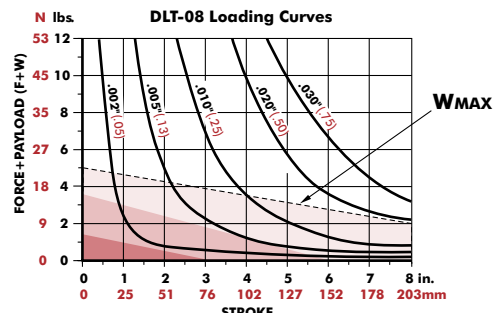
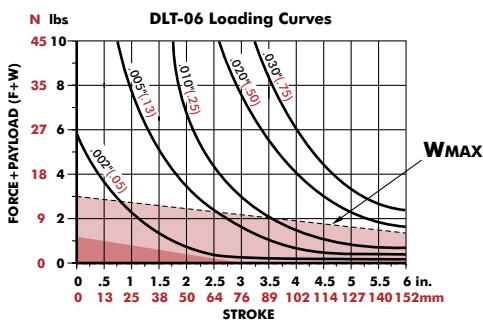


DIRECTCONNECT™ Mounting Pattern Dimensions (all sizes)					
DA	DB	DQ	DR	DS	DT
9.5 [0.375]	19.1 [0.750]	3H7 X 2 DP	M3 x 6 DP	CLR & C'BORE FOR M3	CLR & C'BORE FOR M3

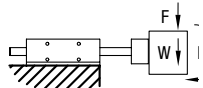
Model	Bore Ø Body Size Shaft Ø			Basic Unit Dimensions										
	A	B	C	D	E	F	G	H	J	K	L	M	R	S
DLT-06M	16 [0.63]	50.8 [2.00]	6.0 [0.236]	54.9 [2.16]	19.9 [0.783]	22.4 [0.88]	16.7 [0.66]	50.3 [1.980]	25.1 [0.990]	22.2 [0.875]	9.3 [0.365]	11.9 [0.470]	9.9 [0.390]	34.93 [1.375]
DLT-08M		63.5 [2.50]	8.0 [0.315]				10.4 [0.41]	62.7 [2.470]	31.4 [1.235]					44.45 [1.750]

Dimensions in mm [in]

### Loading Information



F=Externally applied force  
 W=Weight of payload  
 F+W=Total force  
 M=Maximum moment (in-lb. or N-m)

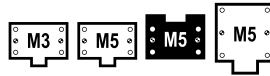


Shock Absorbers and Flow Controls are recommended for all applications

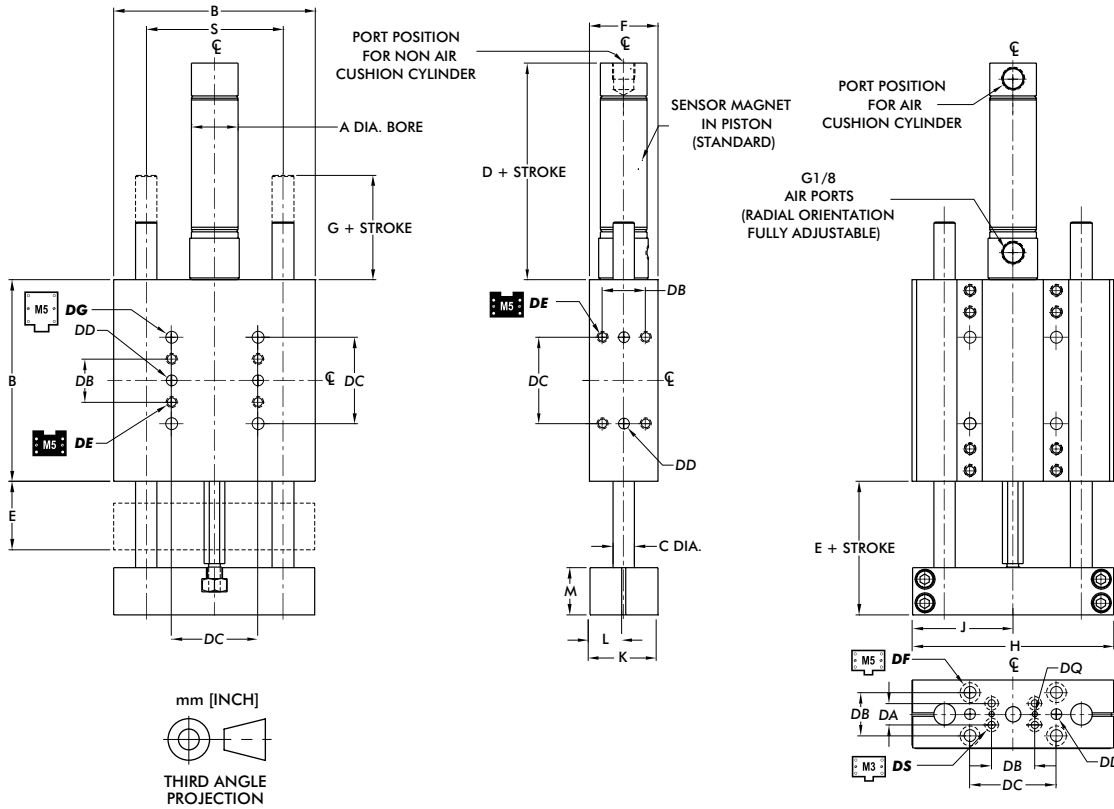
Use **Double Shocks** in both directions    Use **Single Shock** in both directions    Use **Bumpers or Cushioned Cylinder**

Shaded shock absorption ranges of horizontal payload (W) @ 80psi, flow controls fully open. For vertical applications do not exceed 1/2 of the recommended payload due to the additional acceleration effect of gravity.

# DLT-10/12/16M-A, U



## External Air Cylinder Linear Thruster Slides | Dimensions and Technical Specifications

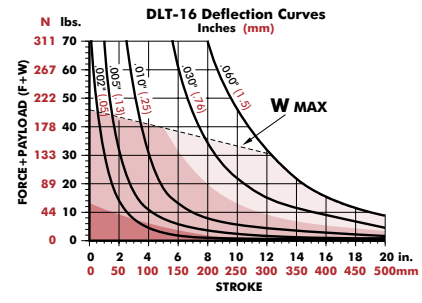
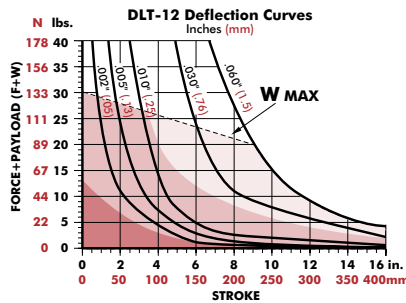
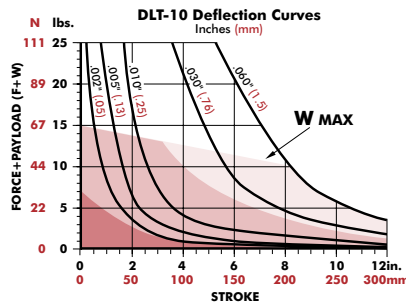


DIRECTCONNECT™ Mounting Pattern Dimensions (all sizes)								
DA	DB	DC	DD	DE	DF	DG	DQ	DS
9.5 [0.375]	19.1 [0.750]	38.1 [1.500]	5mm H7 X 6 DP	M5 X 8.5 DP	CLEARANCE FOR M5		3H7 X 2 DP	CLR & C'BORE FOR M3

Model	Bore Ø Body Size Shaft Ø			Basic Unit Dimensions									
	A	B	C	D	E	F	G	H	J	K	L	M	S
DLB-10M	20 [3/4]	88.9 [3.50]	9.5 [0.375]	88.0 [2.91]	33.4 [1.313]	30.2 [1.19]	20.8 [0.82]	88.6 [3.490]	44.2 [1.740]	29.9 [1.178]	14.8 [0.584]	20.7 [0.813]	60.33 [2.375]
DLB-12M	25 [1]	101.6 [4.00]	12.0 [0.472]	91.5 [2.88]		41.4 [1.63]		101.2 [3.985]	50.4 [1.985]	41.0 [1.615]	20.4 [0.802]		69.85 [2.750]
DLB-16M			120.7 [4.75]	16.0 [0.630]		34.9 [1.375]	19.3 [0.76]	120.3 [4.735]	59.9 [2.360]		82.55 [3.250]		

Dimensions in mm [in]

## Loading Information

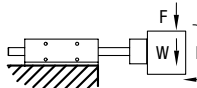


F=Externally applied force

W=Weight of payload

F+W=Total force

M=Maximum moment (in-lb. or N-m)



Shock Absorbers and Flow Controls are recommended for all applications

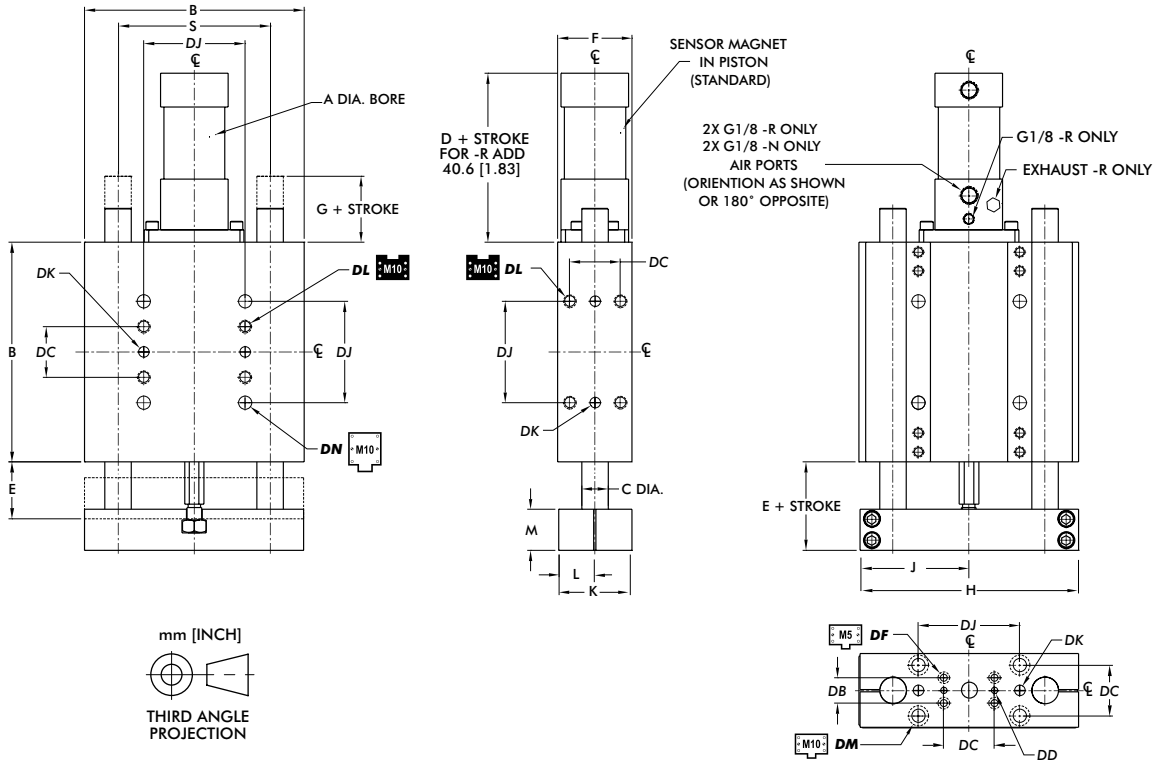
Use Double Shocks in both directions

Use Single Shock in both directions

Use Bumpers or Cushioned Cylinder

Shaded shock absorption ranges of horizontal payload (W) @ 80psi, flow controls fully open. For vertical applications do not exceed 1/2 of the recommended payload due to the additional acceleration effect of gravity.

## External Air Cylinder Linear Thruster Slides | Dimensions and Technical Specifications

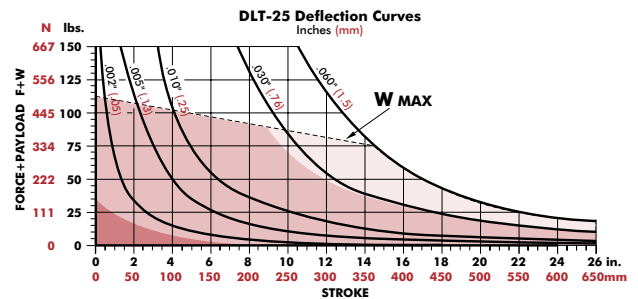
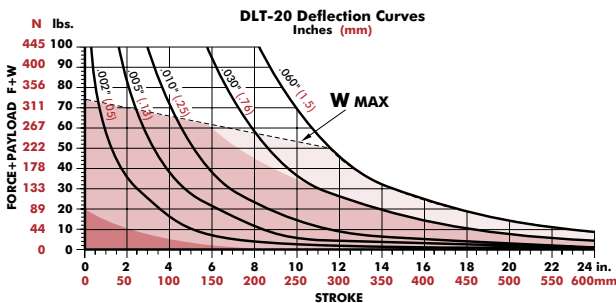


DIRECTCONNECT™ Mounting Pattern Dimensions (all sizes)								
DB	DC	DD	DF	DJ	DK	DL	DM	DN
19.1 [0.750]	38.1 [1.500]	5mm H7 X 6 DP	CLEARANCE FOR M5	76.2 [3.000]	8mm H7 x 9.4 DP	M10 x 14.2 DP	CLR & C'BORE FOR M10	

Model	Bore Ø	Body Ø	Shaft Ø	Basic Unit Dimensions									
	A	B	C	D	E	F	G	H	J	K	L	M	S
DLB-20M	32 [1 1/2]	165.1 [6.50]	20 [0.787]	107.7 [4.01]	49.8 [1.960]	55.9 [2.20]	24.4 [0.960]	164.6 [6.480]	82.0 [3.230]	55.4 [2.180]	27.4 [1.080]	30.7 [1.210]	114.30 [4.500]
DLB-25M		190.5 [7.50]	25 [0.984]		55.1 [2.170]		29.7 [1.170]	190.0 [7.480]	94.7 [3.730]			36.1 [1.420]	133.35 [5.250]

Dimensions in mm [in]

### Loading Information

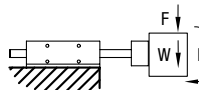


F=Externally applied force

W=Weight of payload

F+W=Total force

M=Maximum moment (in-lb. or N-m)



Shock Absorbers and Flow Controls are recommended for all applications

Use Double Shocks in both directions

Use Single Shock in both directions

Use Bumpers or Cushioned Cylinder

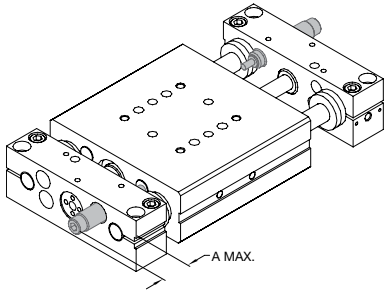
Shaded shock absorption ranges of horizontal payload (W) @ 80psi, flow controls fully open. For vertical applications do not exceed 1/2 of the recommended payload due to the additional acceleration effect of gravity.

# BASE SLIDE ACCESSORIES

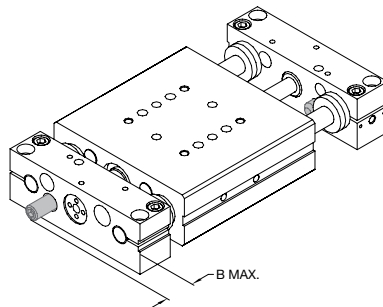
## Linear Slides | Accessory Mounting Technical Data

### DLB-B, L Internally Powered Base Slides

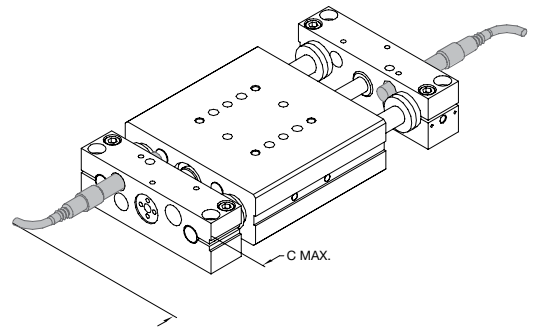
#### Shock Absorbers



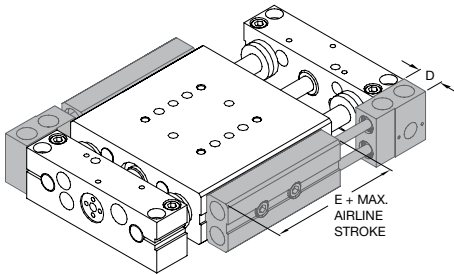
#### Adjustable Hard Stops



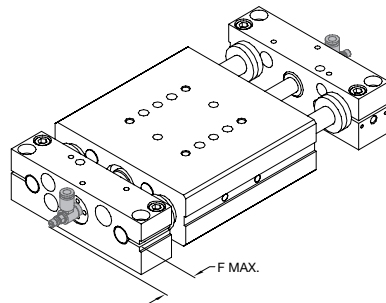
#### Inductive Proximity Sensors



#### Telescopic Airlines



#### Flow Controls

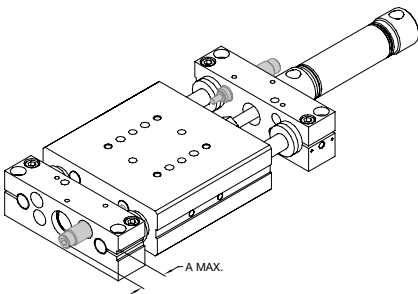


Model	A	B	C	D	E	F
DLB-06M	13.5 [0.53]	10.2 [0.40]	45.7 [1.8]	--	--	25.9 [1.02]
DLB-08M				--	--	
DLB-10M	17.8 [0.70]					
DLB-12M	24.1 [0.95]	11.9 [0.47]	63.5 [2.5]			
DLB-16M				14.7 [0.577]	91.4 [3.60]	31.8 [1.25]
DLB-20M	51.6 [2.03]		53.8 [2.1]			
DLB-25M	46.2 [1.82]	2.5 [0.10]	48.3 [1.9]			

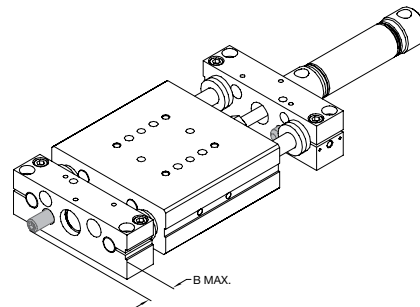
Dimensions in mm [in]

### DLB-T, A, R, U Externally Powered Base Slides

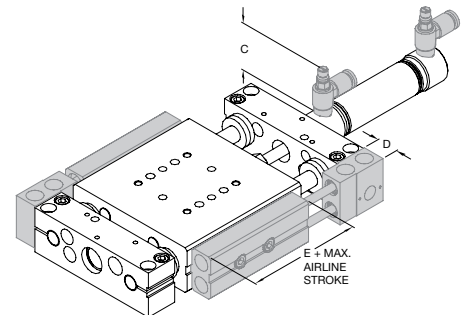
#### Shock Absorbers



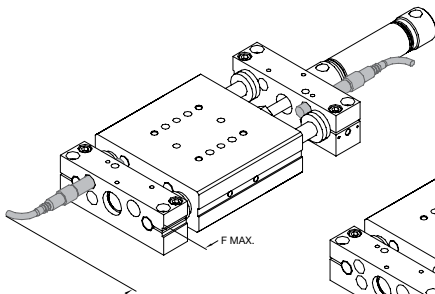
#### Adjustable Hard Stops



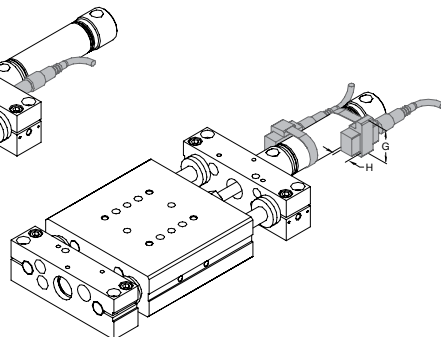
#### Telescoping Airlines & Flow Controls



#### Inductive Proximity Sensors



#### Magneto Resistive Sensors



Model	A	B	C	D	E	F	G	H
DLB-06M	13.5 [0.53]	10.2 [0.40]	25.9 [1.02]	--	--	45.7 [1.8]		
DLB-08M				--	--			
DLB-10M	17.8 [0.70]							
DLB-12M	24.1 [0.95]	11.9 [0.47]				63.5 [2.5]	25.4 [1.00]	10.9 [0.43]
DLB-16M			31.8 [1.25]	14.7 [0.577]	91.4 [3.60]			
DLB-20M	51.6 [2.03]					53.8 [2.12]		
DLB-25M	46.2 [1.82]	2.5 [0.10]				48.3 [1.90]		

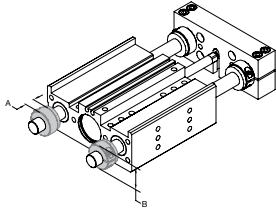
Dimensions in mm [in]

# LINEAR THRUSTER ACCESSORIES

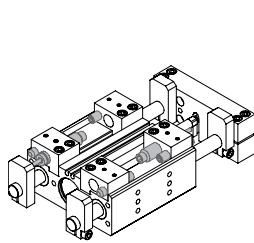
## Linear Slides | Accessory Mounting Technical Data

### DLT-B, E, L Internally Powered Thruster Slides

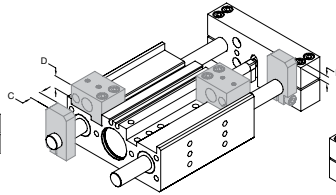
**Urethane Bumpers & Clamp Collars (DLT-E, L only)**



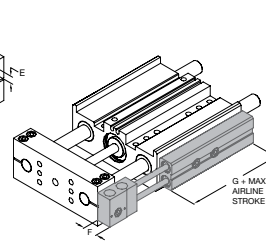
**Adjustable Hard Stop & Shock Absorbers**



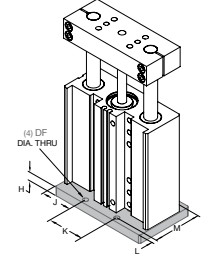
**Universal Mounting Kit**



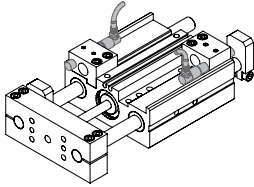
**Telescoping Airlines (DLT-E, L only)**



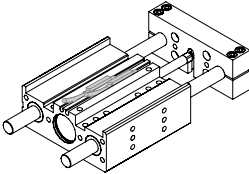
**Base Flange Kit (DLT-B only)**



**Inductive Proximity Sensors**



**Magneto Resistive Sensors**

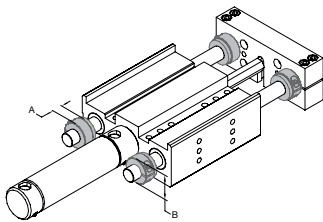


Model	A	B	C	D	E	F	G	H	J	K	L	M
DLT-06M	6.0 [0.236]	12 [0.470] 16 [0.630]	6.4 [0.250]	7.9 [0.310]	6.9 [0.270]	--	--	3.2 [0.125]	8.0 [0.313] 14.3 [0.563]	35 [1.376]	3.2 [0.125]	28.6 [1.125]
DLT-10M	8.7 [0.343]	22.1 [0.87] 9.5 [0.375]	12.2 [0.480]	8.1 [0.320]	5.8 [0.230]			9.0 [0.355]	25.4 [1.000] 32.5 [1.281]	38.1 [1.500]	4.8 [0.188]	38.1 [1.500]
DLT-12M	9.5 [0.375]	23.9 [0.95]	11.4 [0.450]	8.6 [0.340]	14.7 [0.577]	91.4 [3.60]			42.1 [1.656]			50.8 [2.000]
DLT-16M	11.1 [0.437]	33.3 [1.31]	12.7 [0.500]	22.4 [0.920]	17.0 [0.67]			12.2 [0.480]	44.5 [1.750] 57.2 [2.250]	76.2 [3.000]	9.5 [0.375]	76.2 [3.000]
DLT-20M	12.7 [0.500]	38.1 [1.50] 44.5 [1.75]										
DLT-25M												

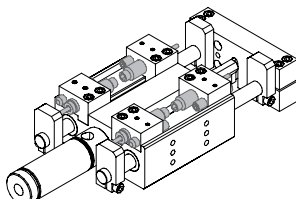
Dimensions in mm [in]

### DLT-T, A, R, U Externally Powered Thruster Slides

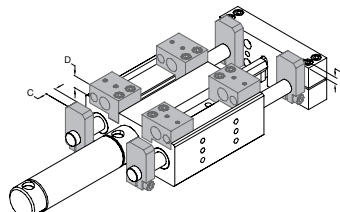
**Urethane Bumpers & Clamp Collars**



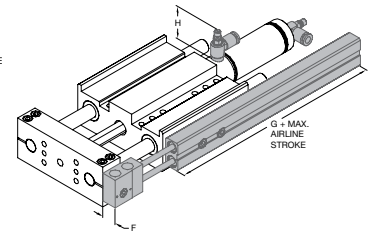
**Adjustable Hard Stop & Shock Absorbers**



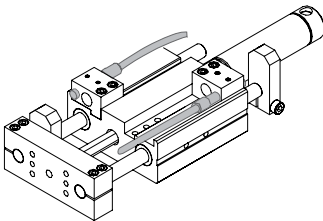
**Universal Mounting Kit**



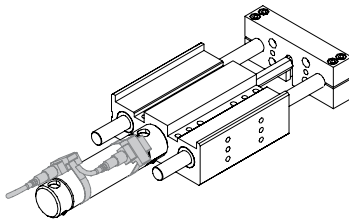
**Telescoping Airlines & Flow Controls**



**Inductive Proximity Sensors**



**Magneto Resistive Sensors**



Model	A	B	C	D	E	F	G	H
DLT-06M	6.0 [0.236]	12.0 [0.47] 16.0 [0.63]	6.4 [0.250]	7.9 [0.31]	6.9 [0.27]	--	--	46.2 [1.82]
DLT-10M	8.7 [0.343]	22.1 [0.87] 9.5 [0.375]	12.2 [0.480]	8.1 [0.320]	5.8 [0.230]			
DLT-12M	9.5 [0.375]	23.9 [0.95]	11.4 [0.450]	8.6 [0.340]	14.7 [0.577]	91.4 [3.60]		
DLT-16M	11.1 [0.437]	33.3 [1.31]	12.7 [0.500]	23.4 [0.92]	17.0 [0.670]			
DLT-20M	12.7 [0.500]	38.1 [1.50] 44.5 [1.75]						
DLT-25M								

Dimensions in mm [in]